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ABSTRACT

The development and use of verbal and nonverbal communication by children in the early stages of second language acquisition were investigated in a natural setting. Twenty young speakers of Japanese, Korean, Hebrew, Spanish, Icelandic, and Polish, enrolled in a multilingual program and ranging in age from 7 to 12 years, served as subjects. All of the children knew very little or no English, were literate in their native languages, and had well-educated parents. For instructional purposes, the children were divided into two groups according to age and maturity level during 30-minute daily periods for the instruction of English as a second language. Videotapes of these sessions were made once a week throughout the 1981-1982 school year, and audiotapes were made of the first 10 minutes of two other sessions each week. Additional observations and recordings were also conducted. Videotapes were scripted and checked by four researchers; all communicative acts in each sequence were then coded for inferred speaker intent, according to a system adapted from Dore (1978). Results describing sequences of events, communicative functions and forms, conversations, and narratives are discussed. (Findings were derived from a total of 8 hours of videotaping.) It is concluded that the narrative and conversational patterns children select appear to be systematically related to their success in learning English. (RH)

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COMMUNICATIVE TACTICS IN CHILDREN'S SECOND LANGUAGE ACQUISITION

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Children who have developed communicative competence in their first language have already acquired strategies for engaging others in interaction, for asking and giving relevant information, for cooperating in conversations, and for expressing wants and needs. Second language acquisition is largely a matter of learning new linguistic forms to fulfill the same functions within a different social milieu.

Although the focus in second language research has shifted from the attainment of grammatical competence to the acquisition of communicative competence, there have still been very few studies which have examined either the development of communicative forms in a naturalistic setting, or the nature of the communicative tactics that children use with one another while they are still in the early stages of second language development and have limited linguistic means at their disposal.

Our research, which is ethnographic in nature, addresses the following questions: What do children in this

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situation need to accomplish in various communicative contexts during the first weeks and months in the United States? What tactics do they use to fulfill these functions, and how do these develop through the year? What is the relative effectiveness of different tactics for accomplishing the children's intent? Are there systematic differences either in children's communicative needs or in their tactics which might be attributable to native language background, social circumstances, or personality factors? By 'communicative tactics', we mean what linguistic or nonlinguistic means at their disposal the children select to try to accomplish their communicative goal.

Method

The population for our research consisted of twenty speakers of Japanese, Korean, Hebrew, Spanish, Icelandic, and Polish who were enrolled in a multilingual program in the Urbana, Illinois public schools. In this elementary school, 41% of the students were native speakers of a language other than English, and all native English speaking students were required to study a foreign language.

The children in our sample ranged in age from 7 to 12 years, with concentrations at ages 7 and 9 (grades 2 and 4). At the time of their selection at the beginning of the fall

semester, all of the subjects (a) knew very little or no English, (b) were already literate in their native languages, and (c) had well-educated parents (professors or graduate students at the University of Illinois).

The twenty children were divided into two groups for daily 30 minute pull-out ESL instructional periods, according to their age and maturity level. We videotaped these sessions once a week throughout the 1981-82 school year, and also audiotaped the first ten minutes of each session another two times a week. Additionally, we observed weekly in regular classrooms and in other school contexts, videotaped once a month in regular classrooms, and audiotaped and videotaped irregularly in other situations (e.g. on the playground, in the library and halls, and in native language reading sessions).

The quantitative data presented in the tables below are derived from a total of eight hours of videotaping: the first four hours filmed in the ESL pull-out situation in September and early and early October, and the seventeenth through twentieth hours filmed in January and early February.

Videotapes were scripted and checked by four researchers; all communicative acts in each sequence were

then coded for inferred speaker intent, using a system adapted from Dore (1978).

Situation and Events

The ESL sessions divided themselves into a regular sequence of events. These are listed below, together with the number of children's communicative acts occurring in each event during the eight hours of filming used for this sample:

	No. of Acts	
	Sept.	Jan.
1. Unstructured/child-directed	144	113
2. 'Claiming a seat'	39	36
3. Teacher-directed discussion (e.g. 'Where's Peter?)	35	131
4. Opening routines (e.g. 'What day is it today?')	36	11
5. Teacher-directed lesson or activity	88	281
6. Explanation of follow up activity	59	94
7. Follow up activity	159	153
8. Closing	38	84

We call the first event in each session 'unstructured' or 'child-directed'. As part of the research design, but also occurring naturally in previous years, the children were left alone without adult supervision or intervention before the ESL teacher came into the room and called them to the instructional area. When she did, they had an event we call 'claiming a seat', during which the children challenged, claimed, and negotiated for their favorite position at a single large table. During these two events, almost all communication that took place was between children.

Insert Table I about here

Table I indicates the percentage of acts within each event the children addressed to other children (from same and different native language background) and to the teacher. Unlike the first two events, events three, four, five, and eight are teacher-directed, and almost all of the children's communicative acts in those events are addressed to her. Events six and seven are less structured, usually including an art project or game, and children address each other as well as the teacher. Since we wish to focus

primarily on child-child communication for this part of our analysis, our examples for this report are drawn from the first, second, and seventh segments of the sessions.

Communicative Functions

The system for coding speech acts that was devised by Dore (1978) includes categories of requests, responses to requests, descriptions of facts, statements of rules and beliefs, acknowledgments which recognize and evaluate responses and nonrequests, organization devices that regulate contact and conversation, and performatives. Our most significant modification was in extending the system to include nonverbal as well as verbal communicative acts; additionally, we have added request and response types for vocabulary identification, repetition, and expansion (e.g. 'Use a complete sentence'), and new categories for translation and interaction (e.g. invitation, acceptance, and rejection of interaction, display behavior, and phatic communication with no propositional content).

As can be seen in Table II, the first two events in each session include a much higher percentage of interactional and performative acts than do the events which are primarily directed by the teacher. The most common of the former are moves which are entries into interaction and

the following acceptance or rejection by another child, or interaction which involves only phatic communication. The most common performatives are teasing, claims, and protests. Almost all requests and responses in these first two events are for action, to do or stop doing something, rather than for information or clarification.

Insert Table II about here

Looking at developmental differences across all events during the four month period represented, there was a drop in questions requiring a yes/no answer, and a rise in WH, action, and identification questions. Children also made many more requests to check their own understanding as time went on, both in English and in their native languages.

Responses showed an even more significant change in type: for example, where 50% of responses were repetitions or memorized recitation in September, fewer than 13% were by January; on the other hand yes/no responses climbed from 8% to 20%, and WH responses from 0.5% to 16% of responses in that category.

There was little change in the quantity of interactional acts during this period, but more invitations were issued for interaction in January as opposed to

children entering interaction without some kind of an invitation. Perhaps for this reason, the rejection rate was much lower by the middle of the school year.

Teasing dropped from 40% to 11% of performative acts, and the number of warnings also declined. Contrary to our expectations, occurrence of sound play quadrupled, perhaps because it proved to be such an enjoyable and successful interactional activity. Its form changed, however, from play primarily based on other children's names to nonspeech sounds. Joking was introduced late in the period under investigation, taking both nonverbal and verbal forms.

Communicative Form

A relatively high percentage of functions in the first two events was accomplished nonverbally, as can be seen in Table III, and there was a significant drop in native language use as English developed as a Lingua Franca.

Insert Table III about here

It is of interest that teasing was still limited almost entirely to nonverbal behavior and the speaker's native language by January, however, and when rejection of

interaction occured at midyear, it was still nonverbal: e.g., children turned their backs on one another.

Statements and descriptions were still not common functions in the children's communication by January, but increasing. The only frequent type of description expressed in English in September was mere identification or labelling, with 70% of the description of events or properties expressed nonverbally or in the speaker's native language, but 64% of even these subtypes were expressed in English by January.

Conversations

The following episode occured on the first day of videotaping in September and illustrates the earliest tactics that our subjects used to converse with one another. As it began, three children were seated at a table: K1 (a Korean boy), J1 (a Japanese boy), and J3 (a Japanese girl). J1 and K1 exchanged a politeness routine to initiate the conversation.

J1 > K1 EXCUSE ME.
K1 > J1 EXCUSE ME.
J1 > K1 EXCUSE ME.

K1 needed something new to say. Cards with colors and shapes had been left on the table, the vocabulary that had been

presented thus far in ESL. K1 picked one up and named it. J3 joined the conversation, naming a color, and J1 repeated 'Excuso'.

K1	TRAYHANGLE.	
J3	RET.	'Red'.
J1	EXCUSO.	

Conversation continued with the children making use of the questioning/testing/correction procedures learned in ESL, as well as the vocabulary presented there. Since they were enrolled in different regular classrooms, ESL was the only language learning experience they had in common.

K1 > J3	Shows her a picture.	
J3 > K1	LADY.	Pronounced /ladi/, with low-mid a.
K1 > J3	LADY.	Pronounced /leydi/, correcting her pronunciation.
	NO /LADI/.../LEYDI/.	

They proceeded to more substantive discussion, with the children successfully using a single referential term, brand name, or simple phrase (e.g., television, RCA, Japan Sony) for asking questions, making statements about the nature of the video equipment, and finally negotiating agreement that the make was RCA. J3 unsuccessfully tried to use Japanese with a Korean speaker.

K1 > Js TELEVISION?
J3 > K1 [Japanese: 'No it's not'.]
J1 > J3 [Japanese: 'It's .. a ..'] RADIO.
J3 > K1 RADIO?
K1 > J3 COLOR TELEVISION.
RCA?
NO?
SONY?
WHAT KIND JAPAN SONY?
J3 > K1 WHAT?
K1 > J3 JAPAN SONY?
TELEVISION.
J3 > K1 WHAT?
K1 > J3 TELEVISION!
J3 > K1 TELEVISION?
K1 > J3 YA! YA! TELEVISION.
K1 > J1 JAPAN SONY.
J1 > K1 SONY.
J1 > K1 RCA?
NO?
K1 > J1 RCA.

Four other children joined the group: one Korean boy (K2), one Japanese boy (J2), and two Japanese girls (J4 and J5). K1 and K2 interacted with the girls in sound play based on the girls' names, and J5 responded nonverbally.

K2 > J3 AKIKU, KIKU, KIKU. Sound play.
K1 > J3 KIKU KU, KU, KU, KU.
K2 > J5 OK. HEY.
J5 > K1 Waves her sweater at him.
K1 > J5 KA-RU. KA-RU.
J5 Fiddles more with her sweater.

K1 continued with one of the few phrases he knew in Japanese, although it was meaningless in this context.

K1 > J5 [J: KARU, KEKKO KEKKO, KEKKO DESU 'Karu, no, no thank you'.]

The children continued their interaction with a Korean boy teasing that Japanese are 'cracked' (crazy), and more sound play.

K2 > J4 JAPANESE.
JAPANESE KRAKU.
K2 > J1 [Korean: DOGINO HAKTTAK, HUKTTAK.]
Scund play (like Japanese clock; Koreans use different sounds to indicate 'ethnicity' of clocks, including /ng/ for American clock, etc.) Korean children understand the sounds DO, NO, GI, DA, MO as representing Japanese.
K2 > J1 [Korean: DOGNINO HAKTTAK, HUKTTAK.]
J1 > K2 Smiles.
K2 > J2 JAPANESE KRAKU.
Points toward J4.
[Korean: adds explanation]
J2 > K2 Laughs.
K2 > J3 AKIKU, KIKU, KIKU.

The second episode occurred two weeks later as Japanese (J6), Korean (K4), and Spanish (S1) speaking boys worked together to assemble a puzzle map of the world. Conversational rounds consisted mainly of one child naming a referent and the other children taking turns repeating the term in round robin fashion.

S1	AMERICA.	
		Finds puzzle piece of the United States and puts it in place.
J6 > S1	Picks up his hand and moves it out of the way.	
J6	JAPANI, JAPANI.	
	Points to place in puzzle frame where the Japan piece will go.	
K4	JAPANI.	
S1	JAPANI.	
J6	JAPANI.	
S1	JAPANI.	
J6	AH. JAPANI.	Finds Japan piece to puzzle.
	KOREA.	Also claims to have found Korea.

Adding only 'No', and using different stress and intonational contours, the children disagreed and questioned one another.

K4 > J6	NO KOREA.
J6 > K4	KOREA.
K4 > J6	NO.
J6 > K4	KOREA.
S1 > J6	KOREA?
K4 > S1	NO.
S1 > K4	[Spanish: SI?]

K4 offered an explanation, which the others acknowledged by repeating it after him.

K4 > S1	YES, YES, YES.	
	NO KOREA.	
	PINK KOREA.	(Stress on 'pink'.) 'Pink' refers to the color of the Korean map piece; i.e., 'It can't be Korea, because Korea is pink'.
J6	PINK.	
S1	PINK.	
K4	KOREA.	Finds piece and puts it in place.

Interaction continued with physical contact and speech play.

S1 > K4 Taps him on arm.
K4 > S1 Looks at him.
J6 > S1 Takes a swipe at him.
S1 > J6 Returns the swipe.
J6 > S1 OMADA, OMADA, OMADA.
Japanese prefix O- 'big', as in 'Omar', a play on S1's name.

The ESL teacher (T2) entered the scene, telling the class (CL) it was time to clean up. K4 unsuccessfully tried to protest to the teacher in Korean, and a Hebrew speaking girl (H2) repeated the teacher's routine 'Time to stop' in a teasing manner to him.

T2 > CL OK, TIME TO STOP.
T2 > CL PUT AWAY THE GAME, PLEASE.
K4 > T2 Points to puzzle.
[Korean: 'Ah! I have to finish'.]
T2 > CL TIME TO STOP.(Rising intonation)
H2 > K4 TIME TO STOP.(Imitates T's intonation)
K4 > H2 Looks at her (threateningly).

This sequence concluded with more repetition and nonverbal tactics, including the teacher's nonverbal control measures. The most complex English structure occured when K4 told J6 he should walk instead of run. J6's very negative response to K4 was in Japanese.

T2 > CL AND LET'S SIT AT THE TABLE.
J6 TABLE.
K4 TABLE.
J6 & K4 Leap up and run toward table.
T2 > K4 Grabs him with arm around neck and shoulder.
K4 > T2 HE.
Points toward table.
Protesting that J6 got away with running to claim chair.
K4 > J6 HEY, WALKING.
J6 > K4 [J: DAMARE! 'Shut up']

It is apparent that from the beginning these children have conversational skills for attention getting and turn taking, and relate their moves in a coherent manner to the form and content of the one that precedes it. In Grice's (1975) terms, they know the cooperative principle of conversation, and are "relevant". The earliest communicative forms available to these children (as for children acquiring a first language) are nonvocal behaviors, sound play and nonspeech sounds, simple routines, repetition of part or all of previous utterances, and single referential terms they are beginning to learn in English (cf. Keenan 1974, Peck 1978). Additionally, these second language learners have access to first language forms and tactics, and have had experience interacting with other children.

All of the children who participated in conversations with other children early in the year made use of the same tactics, no matter what their native language background.

It is important to note, however, that not all of the children engaged in intragroup social interaction. It is not possible to separate cultural and personality factors in determining why some did not, but those who did not were children who appeared either to be less aggressive, or to hold themselves aloof.

Narratives

Unlike early conversational tactics, children used basically different means for describing events and actions during the early stages of learning English. One tactic was to use a single lexical term (usually the name of the topic the child wanted to convey information about). Completion of the proposition required a cooperative addressee, who asked one or more questions that allowed the child to respond with a simple 'yes' or 'no'. This tactic was used more frequently with adults than with other children.

The following sequence, which exemplifies this tactic, was in response to a teacher's (T1) question about why another child had not come to class.

J6 > T1 PICTURE.
T1 > J6 SHE'S MAKING A PICTURE?
J6 > T1 YES.
T1 > J6 WILL SHE COME WHEN SHE'S FINISHED?
J6 > T1 YES.

The same cooperative process continued for the construction of longer texts even after children could express a whole proposition themselves by stringing together multiple terms in English, with adults first providing expanded models, and later prompting expansions by asking WH- questions. This rarely occurred in child-child communication, and never between limited English speakers.

The second tactic was to create a complete topic-comment proposition by using both verbal and nonverbal means, usually naming the topic in English and then providing a nonverbal comment, sometimes accompanied by verbalization in the native language.

In the following example K4 named both agent and object as he communicated to the teacher (T2) that Taki (J6) had thrown a pencil at him while passing out supplies.

K4 > T2	TEACHER. TEACHER.
T2 > K4	Goes over to him.
K4 > T2	TAKI.
	PENCIL.
	Makes throwing motion.
	TAKI.
	UN ... HE.
	Makes throwing motion again.
T2 > J6	TAKI,
	PLEASE DON'T THROW PENCILS.

Most children used this tactic more frequently with other children than with adults, but a few used it almost exclusively for any situation.

The general preference for a nonverbal mode of description to children and verbal to adults is illustrated in the following sequence. A Korean boy (K1) has hit his younger brother (K2). The event is reported nonverbally to an Icelandic girl (I1), and then verbally to the teacher(T1).

I1 > J1 WHAT HAPPEN?
J3 > I1 Arms in circle; pulls down.
J1 > I1 Punches fist into own palm.
Both indicating K2 was hit.
J3 > T1 Goes over to where T is in table area.
TEACHER.
K... CRYING.

The final example illustrates how the tactic of combining verbal and nonverbal components developed into longer narrative structures. The teacher (T2) has just returned snowmen the children had made out of popcorn, and they were going to take them home on the bus. K4 addressed the following narrative to the teacher, but he was also performing for the entire class.

K4 > T2 JUST SAW ME.
JUST SAW ME.
i.e., 'Look at me'; using 'saw' for 'see'.
THIS IS BUS.
Moves two chairs side by side to make bus seats.
ONE.
Slaps one seat.
THIS IS ONE.
THIS IS YOUR BUS.
THIS IS BUS.
DULKUNG DULKUNG.
Means jolting of bus.
Thrusts arms out in front.
SNOWMAN LIKE THAT.
Holds hands palm up in front.
[T has shown children how to hold snowmen 'like a baby' so that the popcorn won't fall off.]
RIGHT HERE FRIENDS. (Calls, with circus barker quality. Addressing imaginary audience on bus.)
Points beside him.
HERE SNOWMAN.
YUM.
Mimes eating.
EAT THEM.
T2 > K4 YOU TELL YOUR FRIENDS, "DO NOT EAT MY SNOWMAN."
OK?
K4 > T2 JUST SAW ME.
MY CLASS EAT THEM.
T2 > K4 YOU TELL YOUR CLASS NOT TO EAT THEM.

The general pattern for such longer narratives by children who preferred this tactic was: (1) getting attention (e.g. 'just saw me'), (2) indicating focus (e.g. 'this', 'right here', tapping the object that was in focus), (3) naming objects, and (4) acting out the event.

Conclusions

By the end of the school year the twenty subjects differed greatly in the degree to which they had mastered English, and their level of accomplishment in reading and other subjects taught through the medium of English. Our analysis of the data is not complete, but the narrative and conversational patterns children select appear to be systematically related to their success in learning English.

Our data suggest the existence of two basic narrative patterns. Children were almost equally divided at the beginning of the year in their preference for using a 'stringing' tactic for developing narrative or a 'holistic' tactic (i.e. using whole messages from the beginning, even when they required a combination of English routines, native language, gestures, nonspeech sounds, and drawing pictures). Some in each group progressed to fairly complex English structures during the course of the year, and some in each group did not, but the 'stringers' had more early success communicating with adults and the whole message users with other children. The 'stringers' have also in general met with more success in transfering their reading skills to English.

We have already reported the apparent universality of early conversational tactics for children who interact socially with one another. However, a few of our

subjects rarely spoke to the other children during the ESL sessions that were audio and videotaped. Even in their regular classrooms and on the playground, they appeared to make minimal use of their developing English for social purposes.

Here we report a counter-universal. It has been claimed by Wong-Fillmore (1976) that such social contact is a critical and necessary factor in second language development. While some of our subjects fit her description, it does not hold true with greater numbers of children and a greater variety of native languages and cultures. In fact, the <u>least</u> sociable of our subjects include those who have acquired the most English vocabulary and grammar during this period, and who have achieved best in content areas of the curriculum taught through English. We have heard children who used virtually no language at all in a group context for two to three months suddenly begin to speak complex English sentences. However, two other children who did not engage in much verbal interaction with the others proved to be among the poorest in their language development, so we are not suggesting any simple correlation, and certainly no cause-effect relationship.

A striking observation, nevertheless, is that some of the more successful communicators, at least in the contexts we recorded, have fossilized at fairly early levels of development, their very success seeming to have reduced their motivation to learn more complex linguistic forms. This fossilization is particularly evident among those who have continued to combine verbal and nonverbal actions to express propositions.

These findings have major relevance for research methodology. First, focusing data collection on only the verbal content of proposition misses a major dimension of communicative phenomena. Furthermore, although recent focus on the development of communicative competence is an important and necessary direction for both research and pedagogy to take, it is not sufficient. Second language learning for children has more complex dimensions when it is a language through which they must learn to learn, as well as a medium for social interaction.

References

Dore, J. 1978. Requestive systems in nursery school conversations: analysis of talk in its social context. In R. Campbell and P. Smith, eds., Recent Advances in the Psychology of Language: Language Development and Mother-Child Interaction. New York: Plenum Press.

Grice, H.P. 1975. Logic and conversation. In P. Cole and J. L. Morgan, eds., Syntax and Semantics: Speech Acts. New York: Academic Press.

Keenen, E.O. 1974. Conversational competence in children. Journal of Child Language 1(2):163-184.

Peck, S. 1978. Child-child discourse in second language acquisition. In E.M. Hatch, ed., Second Language Acquisition: A Book of Readings. Rowley, MA: Newbury House.

Wong-Fillmore, L. 1976. The second time around: cognitive and social strategies in second language acquisition. Ph.D. dissertation, Stanford University.

TABLE I

ADDRESSEE (% within each event)								
Child: Same L	29.6	6.7	8.4	2.1	.3	12.4	19.2	2.5
Child: Dif L	65.4	89.3	8.4	6.4	5.1	10.5	31.1	8.2
Teacher	2.7	4.0	83.1	91.5	91.1	76.5	50.6	81.1
Other	1.9	0.	0.	0.	.2	.7	0.	8.2

TABLE II

COMMUNICATIVE FUNCTIONS (% within each event)

September:	1	2	3	4	5	6	7	8
Requests	20.1	10.3	25.7	5.6	5.7	18.6	17.6	13.2
Responses	13.2	23.1	28.6	63.9	51.1	45.8	31.4	26.3
Descriptions	12.5	0.	5.7	0.	12.5	28.8	8.8	7.9
Statements	3.5	2.6	8.6	0.	0.	3.4	3.8	0.
Acknowledgements	5.6	0.	0.	5.6	0.	10.2	3.8	13.2
Org. Devices	6.3	5.1	2.9	8.3	25.0	32.2	10.7	0.
Interactional	22.2	20.5	5.7	8.3	1.1	10.2	4.4	36.8
Performatives	15.3	38.5	5.7	8.3	1.1	5.1	14.5	2.6
Exclamations	1.4	0.	14.3	0.	2.3	5.1	2.5	2.6
January:								
Requests	11.5	22.2	17.6	0.	9.6	17.0	24.2	21.4
Responses	4.4	13.9	31.3	54.5	34.9	7.4	23.5	22.6
Descriptions	14.2	0.	18.3	0.	24.2	17.0	9.8	7.1
Statements	5.3	0.	1.5	0.	.7	5.3	12.8	2.4
Acknowledgements	0.	0.	8.4	45.5	2.8	1.1	4.6	7.1
Org. Devices	0.	0.	6.1	0.	13.2	23.4	2.6	7.1
Interactional	31.9	5.6	4.6	0.	.7	2.1	1.3	17.9
Performatives	29.2	13.9	7.6	0.	10.7	10.6	17.6	11.9
Exclamations	3.5	5.6	4.6	0.	1.8	9.6	8.5	1.2

TABLE III

COMMUNICATIVE FORMS (% used for each function)

N = Nonvocal (e.g. gesture, facial expression; not counted if an accompaniment of speech)
L1 = Native language
ER = English: routine (e.g. shut up, bye-bye)
EW = English: single word
EM = English: more than one word
O = Other vocalization (e.g. Oh!, Ah!, nonspeech sound)

	N	L1	ER	EW	EM	O
September:						
Requests	21.7	28.3	15.2	19.6	14.1	1.1
Responses	23.8	2.3	15.7	44.8	20.9	4.1
Descriptions	9.4	23.4	9.4	43.8	12.5	0.
Statements	11.1	72.2	0.	0.	16.7	0.
Acknowledgements	18.5	0.	18.5	22.2	7.4	33.3
Org. Devices	36.1	9.7	15.3	11.1	0.	29.2
Interactional	50.0	7.8	35.9	1.6	1.6	3.1
Performatives	36.0	16.0	28.0	9.3	1.3	8.0
Exclamations	5.6	16.7	16.7	0.	0.	61.1
January:						
Requests	21.8	10.9	14.3	16.8	34.5	0.
Responses	19.9	1.2	21.1	44.0	10.2	2.4
Descriptions	17.3	5.1	1.5	33.1	40.6	2.3
Statements	0.	21.7	21.7	26.1	30.4	0.
Acknowledgements	12.0	12.0	40.0	4.0	12.0	20.0
Org. Devices	40.0	0.0	8.0	26.7	5.3	20.0
Interactional	40.7	5.1	39.0	8.5	1.7	1.7
Performatives	37.3	3.7	9.1	6.4	24.5	19.1
Exclamations	26.5	2.9	2.9	0.	17.6	50.0